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This module introduces important data analysis tools available from the National Center for Education Statistics (NCES) within the online DataLab website. These tools include QuickStats, PowerStats, and TrendStats. This module will identify the studies that are available for analysis using the DataLab data tools, describe the features of the DataLab website, and provide an overview of PowerStats.

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The NCES DataLab data tools include three web-based products: QuickStats, PowerStats, and TrendStats. Each product will be described briefly in the slides that follow.

The DataLab data tools enable analysts to generate estimates from unit record NCES public-use or restricted-use datasets without having to obtain a restricted-use license. Additionally, the DataLab tools properly account for NCES studies' complex sample designs, including the correct calculation of standard errors.

The DataLab tools facilitate exploration of NCES datasets, helping answer the fundamental question: "Are these NCES data for me?"

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QuickStats can be used to generate percentages, averages, tables, and simple graphs using frequently used variables. It is important to note that the variables available for analysis within QuickStats are limited to those that are the most frequently used and the most recommended for use by NCES.

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PowerStats can be used to generate complex averages, percentages, medians, and centile tables. It can also perform linear and logistic regressions and correlation matrices. Users are able to select from a complete list of thousands of variables. PowerStats will be discussed in more detail later in this module.

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TrendStats can be used to explore statistical trends over time. It can be used to generate averages, medians, and percentages tables over time. Users can select from variables that are repeated in certain studies. NCES has selected variables for inclusion in TrendStats that are comparable over time, enabling them to be presented in multiple tables and graphs.

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There are currently several studies (or groups of studies) available for analysis via the DataLab: the Pre-Elementary Education Longitudinal Study, the Schools and Staffing Survey, the Education Longitudinal Study, the Postsecondary Longitudinal and Sample Surveys, and the School Survey on Crime and Safety.

The Pre-Elementary Education Longitudinal Study (PEELS) is a longitudinal study of children with disabilities who were 3 to 5 years old at the start of the study in 2003 and followed through 2008.

The Schools and Staffing Survey (SASS) collects information on public and private schools, public and private school teachers, public and private school principals, districts, and library media centers.

The Education Longitudinal Study of 2002 (ELS:2002) survey focuses on the transition of American youth from secondary schooling to subsequent education and work roles.

The Postsecondary Longitudinal and Sample Surveys includes the following studies: the National Postsecondary Student Aid Study, or NPSAS, the Beginning Postsecondary Students Longitudinal Study, or BPS, the Baccalaureate and Beyond Longitudinal Study, or B&B, and the National Study of Postsecondary Faculty.

The School Survey on Crime and Safety (SSOCS) collects school-level data on crime and safety.

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It is important to note that the DataLab does not provide analysts with data files from the studies listed here. The DataLab enables analysts to conduct research on the data files of interest without having to access the actual data files via a statistical analysis program, or acquire a restricted-use license. Additionally, the analysis tools available within the DataLab for each group of studies, or study, may vary. For example, SASS data are only available via PowerStats, not in QuickStats or TrendStats. Over time additional datasets may be added to the DataLab depending on the needs of each NCES program.

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The DataLab offers many useful data analysis tools. In order to enter the DataLab, users must first choose a group of studies (or study) available for analysis.

After selecting one of the groups of studies (or studies), users will be taken to the appropriate portion of the DataLab website.

By clicking on either **QuickStats** or **PowerStats** researchers will be taken to the corresponding data tool to conduct analyses on data available within the tool.

Users can also utilize additional features on each page such as **Spotlight**, **Data**, **Codebooks**, and **Updates**.

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The findings presented in the **Questions Answered from DataLab** section spotlights the dataset of interest. Clicking, **Data** will display information regarding the data availability within the DataLab. By clicking, **Codebooks** users will be able to review the available codebooks relevant to their dataset of interest. Finally, clicking, **Updates** will describe any updates that have been made to the datasets that may affect analyses and the status of the data.

Users can also access the Learning Center and Tables Library for each group of studies (or study). Links to the Learning Center and Tables Library will be provided on the last slide of this module.

The Learning Center offers users many helpful hints for using the DataLab. It demonstrates what researchers should do as they are getting started with the tools including how to choose a dataset and what features are available from the tables. It also explains how users can view and edit tables they create as well as the various types of tables that can be created, edited, and saved. It is important to note that the Learning Center documentation will feature postsecondary education datasets, however the concepts and steps presented will be the same for all datasets included within the DataLab.

The Tables Library contains tables from NCES publications that cover a range of topics, typically regarding postsecondary education. The Tables Library can be searched by keywords using the **Search Tables Function**. Search results can be narrowed by data source and publication year. Researchers may also browse for tables by topic using **Explore Topics**. It is important to note that the answer to your research question may found within the Tables Library.

Now, let's turn our attention to PowerStats.

To access PowerStats, users must create a DataLab account by entering their email address, creating a password, and agreeing to the terms of the NCES Data Usage Agreement. By creating an account users will be able to save, retrieve, and store their work within the DataLab. Users can access QuickStats without creating a DataLab account after agreeing to the terms of the NCES Data Usage Agreement, however, an account is required to use PowerStats and TrendStats.

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PowerStats is a table and statistics generator that uses restricted-use data. Because users only see estimates and standard errors in the results, no restricted-use license is required. PowerStats enables users to access results based on unit record NCES data without utilizing a statistical analysis program. PowerStats allows researchers to generate percentage distributions, averages, medians, and percentages, centiles, and regressions. It is important to note that PowerStats cannot run advanced functions like hierarchical linear modeling (HLM), but by running multiple regressions, analysts can get a feeling for likely HLM results. It is also important to note that to comply with confidentiality laws, some datasets in PowerStats access public-use data instead of restricted-use data.

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Once you enter PowerStats, you will see this launch page. From this page you will be able to access resources that will help you get started with PowerStats, including training modules, learn-by-doing exercises, and technical documentation. Researchers who use these tools, in conjunction with the DLDT modules, will learn very quickly how to use the datasets of interest.

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From this launch page you will also be able to create new table or regression analyses. By clicking either **Table** or **Regression** you will enter the PowerStats workspace.

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The PowerStats Work Space will look the same across all datasets included within the DataLab. Users will first expand any of the survey groups listed under the **Group** column (note that the Postsecondary survey groups will be selected by default) and then drag the desired group to the **Group** box within the **Work Space**. From there, users will be prompted regarding the selections available for analysis. It is important to note that users may also **Quick Select** by dataset name under the **Group** column.

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From the launch page you will also be able to use existing files within your library, import a file, launch the batch processor, or view your recent work.

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**My Library** allows users to save tables, datasets, and variables for later viewing. Researchers can use **My Variables** to build and edit their collection of variable lists. Within **My Library** researchers can also see what other PowerStats users have created by opening **User Created Tables**. Finally, the **All Variables** option can be used to find and add variables to **My Variables**.

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In addition to the resources described within this module, and within the DataLab, NCES offers a help desk to assist analysts using the DataLab. Users can email NCES.Info@rti.org or call (800) 677-6987 for assistance with QuickStats, PowerStats, and/or TrendStats. Users are encouraged to explore the resources provided before contacting the help desk.

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This module introduced important data analysis tools available from NCES: The DataLab data tools. These tools included QuickStats, PowerStats, and TrendStats. This module identified the studies available for analysis using the DataLab data tools, discussed features of the DataLab website, and provided an overview of PowerStats.

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This module has also provided resources that can be accessed through the DLDT system and/or on the PowerStats website.

You may now exit the module.